

REMARKS

The non-final Office Action dated Aug. 4, 2009 has been received and reviewed. Prior to the present communication, claims 1-24 were pending in the subject application. Claims 1-4, 6-12, and 14-24 have been amended herein. Care has been exercised to introduce no new matter. Claims 1-24 are pending and are believed to be in condition for allowance. Applicants respectfully request reconsideration of the present Application in view of the above amendments and the following remarks.

Amendments to the Specification

Amendments to the specification have been made herein in order to overcome rejections under 35 U.S.C. § 101. No new matter has been introduced as a result of said amendments to the specification. Applicants respectfully request entry of said amendments to the specification.

Amendment to the Drawings

An amendment to the drawings has been made herein in order to correct a duplicate numbering of element #304 in Fig. 3. No new matter has been introduced as a result of said amendment to the drawings. Applicants respectfully request entry of said amendment to the drawings.

Rejections based on 35 U.S.C. § 101

Claims 5 and 13-24 were rejected under 35 U.S.C. § 101 as ostensibly being directed to non-statutory subject matter. Applicants respectfully traverse and request withdrawal of said rejection for the following reason.

Applicants' specification has been amended to remove descriptions objected to by the Office. In particular, descriptions directed to a signal, carrier wave or other transport mechanism of communication media have been removed.

Rejections based on 35 U.S.C. § 102

A) Applicable Authority

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdeggall Brothers v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). *See also*, MPEP §2131.

B) Anticipation Rejection Based on "Recognizing Mathematical Expressions Using Tree Transformations" (hereinafter "Zanibbi")

Claims 1-3, 5-7, 9-16, 18, 19 and 21-24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Zanibbi. Applicants respectfully traverse and request withdrawal of said rejection for the following reasons.

Independent claim 1 has been amended to recite, in part,

"assigning the first ancestor node *based on a selection* of the potential candidate node most often identified as associated with the leaf nodes in the first set; and assigning the second ancestor node *based on a selection of one or more criteria other than* the potential candidate node most often identified as associated with the leaf nodes in the second set."

Zanibbi describes a baseline structure tree, where processing results in another data tree structure in which new node assignments have been made (*see Zanibbi*, Fig. 2 and

p.1456). The processed data tree structure of Zanibbi shows the results of the same node that was most often used in the original baseline structure tree. However, there is no description of a *selection of this particular criteria* being made in assigning the first ancestor node. In addition, Zanibbi does not describe assigning a second ancestor node, based on a selection of one or more criteria, *other than* the most often identified potential candidate node associated with the second set of leaf nodes.

As Zanibbi fails to describe, either expressly or inherently, each and every element as set forth in independent claim 1, as amended herein, it is respectfully submitted that this reference fails to anticipate this claim. Similarly, Zanibbi fails to anticipate dependent claims 2-3 and 5 for at least the reasons discussed above with regard to amended independent claim 1. As such, each of claims 1-3 and 5-6 is believed to be in condition for allowance and such favorable action is requested.

Independent claim 6 has been amended to recite, in part,

“assigning the first ancestor node based on a selection of the potential candidate node most often identified as associated with the leaf nodes in the first set, *wherein the assigned first ancestor node comprises data preserved and maintained from the first data structure*; and assigning the second ancestor node *based on a selection of one or more criteria including* the potential candidate node most often identified as associated with the leaf nodes in the second set.”

Zanibbi describes a baseline structure tree, where processing results in another data tree structure in which new node assignments have been made (*see Zanibbi*, Fig. 2 and p.1456). The processed data tree structure of Zanibbi shows the results of the same node that was most often used in the original baseline structure tree. However, there is no description of a *selection* of this particular criteria, *or any other criteria* being made in assigning the first ancestor node or the second ancestor node. There is also no description of data from the first

data structure that is *preserved and maintained* in the assigned first ancestor node. In addition, Zanibbi does not describe the steps of transforming data, identifying potential first and second ancestor nodes, and assigning first and second ancestor nodes *incrementally as additional input is received*, as claimed by Applicants.

As Zanibbi fails to describe, either expressly or inherently, each and every element as set forth in independent claim 6, as amended herein, it is respectfully submitted that this reference fails to anticipate this claim. Similarly, Zanibbi fails to anticipate dependent claims 7 and 9-13 for at least the reasons discussed above with regard to amended independent claim 6. As such, each of claims 6-7 and 9-13 is believed to be in condition for allowance and such favorable action is requested.

Independent claim 14 is directed to a data processing computer system and has been amended to recite, in part,

“a processor programmed and adapted to: ... assign the first ancestor node *based on a selection* of the potential candidate node most often identified as associated with the leaf nodes in the first set; and assign the second ancestor node *based on a selection of one or more criteria including* the potential candidate node most often identified as associated with the leaf nodes in the second set.”

Zanibbi describes a baseline structure tree, where processing results in another data tree structure in which new node assignments have been made (*see Zanibbi*, Fig. 2 and p.1456). The processed data tree structure of Zanibbi shows the results of the same node that was most often used in the original baseline structure tree. However, there is no description of a processor programmed to *select* this particular criteria when the first ancestor node is assigned. In addition, Zanibbi does not describe a processor programmed to assign a second ancestor node,

based on a *selection of one or more criteria*, which includes the most often identified potential candidate node associated with the second set of leaf nodes.

As Zanibbi fails to describe, either expressly or inherently, each and every element as set forth in independent claim 14, as amended herein, it is respectfully submitted that this reference fails to anticipate this claim. Similarly, Zanibbi fails to anticipate dependent claims 15-16 for at least the reasons discussed above with regard to amended independent claim 14. As such, each of claims 14-16 is believed to be in condition for allowance and such favorable action is requested.

Independent claim 18 is directed to a data processing computer system and has been amended to recite, in part,

“a processor programmed and adapted to: ... assign the first ancestor node based on a selection of the potential candidate node most often identified as associated with the leaf nodes in the first set, *wherein the assigned first ancestor node comprises data preserved and maintained from the first data structure*; and assign the second ancestor node based on a selection of one or more criteria *other than* the potential candidate node most often identified as associated with the leaf nodes in the second set.”

Zanibbi describes a baseline structure tree, where processing results in another data tree structure in which new node assignments have been made (*see Zanibbi*, Fig. 2 and p.1456). The processed data tree structure of Zanibbi shows the results of the same node that was most often used in the original baseline structure tree. However, there is no description of a processor programmed to *select* this particular criteria or to preserve and maintain data from the first data structure in the assigned first ancestor node. In addition, Zanibbi does not describe a processor programmed to assign a second ancestor node, based on a *selection of one or more*

criteria, other than the most often identified potential candidate node associated with the second set of leaf nodes.

As Zanibbi fails to describe, either expressly or inherently, each and every element as set forth in independent claim 18, as amended herein, it is respectfully submitted that this reference fails to anticipate this claim. Similarly, Zanibbi fails to anticipate dependent claims 19 and 21-24 for at least the reasons discussed above with regard to amended independent claim 18. As such, each of claims 18-19 and 21-24 is believed to be in condition for allowance and such favorable action is requested.

Rejections based on 35 U.S.C. § 103

A) Applicable Authority

Title 35 U.S.C. § 103(a) declares, a patent shall not issue when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” The Supreme Court in *Graham v. John Deere* counseled that an obviousness determination is made by identifying: the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and prior art references; and secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). To support a finding of obviousness, the initial burden is on the Office to apply the framework outlined in *Graham* and to provide some reason, or suggestions or motivations found either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the prior art reference or to combine prior art reference teachings to produce the claimed invention. See *Application of Bergel*, 292 F.2d 955, 956-957 (CCPA 1961).

B) Obviousness Rejection Based on “Recognizing Mathematical Expressions Using Tree Transformations” (hereinafter “Zanibbi”) and U.S. Pub. No. 2004/0088652 (hereinafter “Abe”)

Claims 4, 8, 17 and 20 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Zanibbi as applied to claims 1, 7, 14 and 19, in view of Abe. Applicants respectfully traverse and request withdrawal of said rejection for the following reasons.

Claim 4 depends from amended independent claim 1. As discussed above, amended independent claim 1 is now believed to be allowable over the prior art of Zanibbi. Abe is directed towards addressing elements in a structured document (*see Abe*, Abstract), and as such, does not overcome the deficiencies of Zanibbi. Therefore, claim 4 is also believed to be allowable over the prior art of record, at least for the same reasons with regard to amended independent claim 1.

Claim 8 depends from amended independent claim 6. As discussed above, amended independent claim 6 is now believed to be allowable over the prior art of Zanibbi. Abe is directed towards addressing elements in a structured document (*see Abe*, Abstract), and as such, does not overcome the deficiencies of Zanibbi. Therefore, claim 8 is also believed to be allowable over the prior art of record, at least for the same reasons with regard to amended independent claim 6.

Claim 17 depends from amended independent claim 14. As discussed above, amended independent claim 14 is now believed to be allowable over the prior art of Zanibbi. Abe is directed towards addressing elements in a structured document (*see Abe*, Abstract), and as such, does not overcome the deficiencies of Zanibbi. Therefore, claim 17 is also believed to be

allowable over the prior art of record, at least for the same reasons with regard to amended independent claim 14.

Claim 20 depends from amended independent claim 18. As discussed above, amended independent claim 18 is now believed to be allowable over the prior art of Zanibbi. Abe is directed towards addressing elements in a structured document (*see Abe*, Abstract), and as such, does not overcome the deficiencies of Zanibbi. Therefore, claim 20 is also believed to be allowable over the prior art of record, at least for the same reasons with regard to amended independent claim 18.

CONCLUSION

For at least the reasons stated above, claims 1-24 are now believed to be in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 202/783-8400 or nberezny@shb.com (such communication via email is herein expressly granted) – to resolve the same.

The fee for a two-month extension of time is submitted herewith. It is believed that no additional fee is due. However, if this belief is in error, the Commissioner is hereby authorized to charge any additional fees that are required, or credit any overpayment, to Deposit Account No. 19-2112 with reference to Attorney Docket Number 306582.01/MFCP.149540.

Respectfully submitted,

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